



Multifunctional tool extension fix

Warning!

I would like to point out once again that this is not a professional repair by a trained technician. I therefore ask you to be careful with further use. If you are unsure, go to a [hackerspace](#). They will certainly be able to help you with the repair and will be at your side if something does not work. Everything works for me, but you should still keep an eye on it. If something smells unusual or if the multi-function tool makes strange noises, it is better to turn off the tool and look it up. Whatever I can think of right now. I've seen this in videos a few times in the last few weeks. If you want to check something on a tool or change a drill head, **you always**, I say this again, **always pull the power plug**. I just want to spare you the experience of how it feels when the nut key hits your thumb at high speed. **Always**. Once more. **Always disconnect the power plug for fixing and then plug it back in for normal operation**. The same applies to electrical appliances. Remember, please. You'll save yourself a lot of pain.

Preface



Two weeks ago I ordered a multifunctional tool online so that I could work on some projects faster. For example, I have many workpieces that need to be ground and that works by hand. It only takes twice as long and I still sand the details by hand because I pay a lot of attention to the details. However, I had tried the extension and either made a mistake when connecting or the suspension

(an infusion stand) had a bad effect on the function. Perhaps the product was also only poorly processed. When I tried it out, it broke and I had to repair it.

Materials

We don't need any materials, just tools to repair and the broken extension.

- Wire cutting pliers
- Metal saw
- Safety goggles
- White acrylic marker

Realisation



In the first step we pull the spiral spring away from the end to be repaired. Therefore we pull the spring with a strong jerk and try not to bend it too much. We remove the aluminium screw cap. Also here one needs sufficient power, although in my opinion the construction unit could be installed more firmly.



We can see exactly where the steel wire twisted, which in turn led to the actual breakage. This wire is screwed to the socket of the multifunction tool and then passes the rotation to the module at the other end of the extension. This makes it possible to work finer and more accurately, as you do not have to hold the heavy machine in your hand.



We now use the aluminium screw cap to draw the length. You should always adhere to the often-vaunted rule: Better too much than too little. If we leave more of the steel cable over and it should be too much when clamping, we can still cut off a piece with the pliers. We hold the aluminium piece to the rubber hose and mark it with a white (or another colour) marker. At this point we pinch a hole with the pincers and slowly separate one end of the hose from the main part.



Under the protective foil is another metal spiral. This gives the extension stability and prevents it from twisting into itself. I just wanted to cut it with the little side cutter and broke it. I thought the tool was more stable. At this point it is best to work with a metal saw. Since the spiral is flexible on its own, you should work carefully to avoid slipping and sawing your hand by mistake.



Here we see the end after we have removed all the superfluous protective cover. Now all components are put on again. So first the component made of aluminium. If this does not immediately go over the plastic, it can be scraped off a little with a carpet knife. Then we pull the outer metal spiral over again and shorten the metal part to the appropriate length. We test this with a not so fast speed and try all levels from 1-6.